



# The Forster collection of zoological drawings in the British Museum (Natural History)

P. J. P. Whitehead

Department of Zoology, British Museum (Natural History), Cromwell Road, London SW7 5BD

## Contents

Abstract . . . . .	25
Introduction . . . . .	25
<i>Descriptions animalium</i> . . . . .	26
The drawings . . . . .	27
The artists . . . . .	29
Banksian catalogues of drawings . . . . .	31
George Forster's <i>Observationes</i> . . . . .	34
The Forster animal drawings in the British Museum (Natural History) . . . . .	34
The Forster animal drawings in Gotha, Weimar and Jena . . . . .	46
References . . . . .	47

## Abstract

Almost all the natural history drawings made by George Forster (1754–94) on Captain Cook's second voyage around the world are now in the British Museum (Natural History). The two zoological volumes contain 33 drawings of mammals, 140 of birds, 3 of reptiles, 81 of fishes and 14 of invertebrates, of which 191 are variously completed in watercolour and 80 are pencil sketches. The drawings, for the most part unpublished, are an integral element in J. R. Forster's *Descriptions animalium* (1844).

The bird drawings have already been catalogued by Lysaght in an earlier volume of this Bulletin (1959). The remainder are listed here, with all annotations, references to the *Descriptions animalium* and citations from a contemporary list and from a notebook of George Forster's observations. In addition, the 26 gouaches in a series at Gotha are listed, as well as the 6 watercolours at Weimar and 2 at Jena.

## Introduction

Early zoological and botanical drawings are often essential to the identification of Linnaean and subsequent names because of inadequate original description and/or absence of type-specimens. For this reason, the many hundreds of drawings of animals and plants made on Captain Cook's three voyages, almost all of which are now in the British Museum (Natural History), are fairly frequently examined in order to settle taxonomic or nomenclatural problems. Relatively few of these drawings have ever been published, yet many are virtual if not actual iconotypes.\*

The largest series of natural history drawings from Cook's voyages is that by Sydney Parkinson (1745?–71), natural history artist on the first voyage (1768–71); it comprises 18 botanical and 3 zoological volumes. Smaller, but equally important is the collection of drawings made on the second voyage (1772–75) by Johann George Adam Forster (1754–94), son of the official naturalist on the voyage, Johann Reinhold Forster (1729–98); the Forster collection comprises 2 botanical

\* *Iconotype*: strictly, an illustration that formed the *sole* basis for a new species name, not necessarily with a verbal description unless the illustration remained unpublished. An illustration is based directly or at one or more removes on a specimen, but if this or another specimen was used by the author of a new name, then the illustration is not an iconotype but merely an extension of the description. Nevertheless, where type-specimens have not survived, then their illustration, whether published or not, has great importance. Although not in the strict sense semaphorants (i.e. name-bearers), such illustrations often provide more easily interpreted information than many an early verbal description. In this respect, an original drawing is usually superior to a published one, hence the continued value of early drawings to taxonomy.

and 2 zoological volumes. Fewer natural history drawings were made on the third voyage (1776–80), but they include a small volume of 115 drawings by William Ellis (1735?–85). These Parkinson, Forster and Ellis drawings are in the British Museum (Natural History), but there are also a few natural history drawings in the Department of Prints and Drawings at the British Museum, including 46 by John (William) Webber (199\* b 2) and a few by John Cleveley, John Frederick Miller and James Miller (bound together, 199\* b 4).

The natural history drawings from the Cook voyages were formerly in the possession of Sir Joseph Banks (1743–1820). Together with the Banksian collection of books, manuscripts and specimens, they passed to the British Museum in 1827 and they were amongst the Banksian and other natural history drawings that in 1881 were transferred (with a few exceptions) to the newly founded British Museum (Natural History) at South Kensington.

There is no published catalogue of all the natural history drawings from the Cook voyages. For zoology, the nearest approach is that by Lysaght (1959) in her excellent study and listing of all the Banksian bird drawings. An account of Parkinson's zoological drawings from the first voyage was given by Sawyer (1950) and some useful information on George Forster's zoological drawings was given by Steiner & Baege (1971) and also by Joppien (1976). Albert Günther drew up lists of all the fish drawings in the Parkinson and Forster volumes and these lists are now kept with their respective volumes. More important, however, are five contemporary lists of Banksian natural history drawings, the most complete being that made by Jonas Dryander (1748–1810), Banks' second librarian. These lists are of great interest because they were based on information that seems to be no longer available, such as the attribution of 9 first voyage drawings to Herman Diedrich Spöring (1740 ?–71), assistant and amanuensis to Banks on the voyage (7 fishes, 2 crabs). The lists also contain information that must have been supplied by the Forsters, of which the original document is no longer extant. The main Dryander list was used by Lysaght (1959) and all were briefly enumerated by Whitehead (1969a : 186–187); they will be described in more detail below (see p. 31).

The natural history observations made by George Forster during the early part of the voyage are contained in a notebook now in the Bibliothèque Centrale of the Muséum National d'Histoire Naturelle in Paris. Some of the observations are relevant to the drawings listed here and will be discussed below (p. 34).

The catalogue of the Forster zoological drawings given here is a further contribution to the growing literature on J. R. Forster and his son George. The latter has been well served by an East German Forster-Ausgabe justifiably determined to make a hero, resulting in a multi-volume work on his life, writings and letters (Steiner, 1971; see also Kahn *et alii*, 1972 etc.). George has always stolen the limelight, but J. R. Forster, maligned and underrated for much too long, has now been rehabilitated in a full, detailed and superbly documented biography by Michael Hoare (1976). Much information can be mined from Steiner and from Hoare on the circumstances of the voyage and the production and fate of the drawings, and the value of this is enhanced by the publication of J. R. Forster's manuscript *Journal* of the voyage, in which day-to-day zoological and botanical discoveries are noted (Hoare, in press). Thus, the taxonomist has quite a range of primary and secondary material with which to explore Forster's descriptions of animals.

### *Descriptiones animalium*

The value of the Forster drawings is still immense. Few have ever been published, yet they frequently provide the best means of identifying the species described by Forster or by later workers who used Forster's manuscripts. The zoological drawings have a particular importance because specific reference is made to them in Forster's original descriptions of the animals seen during the voyage, many of which were described and named for the first time. Unfortunately, Forster's descriptions remained in manuscript during his lifetime, being in the form of three quarto and one folio volume (I, 98 ff – from August 1772; II, 134 ff – from July 1773; III, 135 ff – from April 1774; IV, 86 ff – from December 1774). These four volumes were subsequently acquired by the Königlichen Bibliothek (later Preussischer Staatsbibliothek) in Berlin and after the last war were among the manuscripts eventually deposited in the Staatsbibliothek Preussischer

Kulturbesitz at Dahlem in West Berlin (Ms Lat. qu. 133–136); Forster's manuscript *Journal* is also in this library (Ms germ. qu. 222–227).

Forster's manuscript descriptions were seen and the ichthyological portions used by J. G. Schneider (1801) for his *Systema ichthyologiae*, where they were cited by volume and page number (but the drawings not seen). It was not until some seventy years after the voyage that the Forster descriptions were published, being edited by M. H. K. Lichtenstein (1844) as *Descriptiones animalium*. By this time, many of the species were no longer novelties, having long since been described by Schneider and others, often as a result of further material brought back from the Pacific. Lichtenstein was faithful to Forster's text, merely adding an asterisk and footnote when the species had already been given a name. His additions on the manuscript were made in red ink. They also include a serial number for each species, but there are a few errors in the numbering; 34 is missing and *Perca lepidoptera* is not numbered. In the published text there is also a carelessness over numbers; 102 is omitted, two species are not numbered (pp. 363, 388, although the latter is merely a variety or subspecies), while male and female are sometimes numbered separately and sometimes not. Forster occasionally had a change of mind over the name of a species, but in at least one case it appears that the Forster name has been crossed out and Lichtenstein has added another (vol. IV, f. 12 – *cyprinoides* for *setipinna*).

For the majority of species there is a reference by J. R. Forster himself to a drawing, cited as 'Fig. pict. G.' etc., and it is clear that the making of a drawing was an integral part of the process of description. According to the *Descriptiones animalium*, drawings were made for 16 out of 46 species of mammals described, 121 out of 160 species of birds, 1 for the only species of reptile, 67 out of 86 species of fishes, and 5 out of 13 species of invertebrates, making a total of 211 species drawn out of 306 described. This does not take into account species merely mentioned by name, for which no indication of a drawing is given although such in fact exists. Only a few of the earlier drawings are stated to have had a number, given as Fig. picta A.1, 2, 3, 4, 5, 6, then x (twice), then A alone, then x alone, thereafter nothing. However, almost all the drawings can be related to a description by virtue of a name and/or locality and date written on the drawing. The drawings would have been better known and used had Lichtenstein added the number of each drawing.

The *Descriptiones animalium*, although fairly widely used by nineteenth-century zoologists, has suffered from several disadvantages. The narrative sections, as well as the descriptions and Lichtenstein's introduction, are written in Latin. Again, the arrangement is chronological and not systematic and although there is an index, the names are keyed to generic allocations that are not easily recognizable to modern workers; in any future reprint edition the provision of an index to species names, as well as a table of contents arranged systematically, would be a help. The most serious drawback is the lack of illustrations, for the drawings have hardly been used by non-British zoologists until comparatively recently. For these reasons, and because of the delay in publication of the text, J. R. Forster's most important contribution to zoology has not reaped the credit that it deserves.

## The drawings

The Forster collection contains 33 drawings of mammals (Nos 1–31), 140 of birds (Nos 32–168), 3 of reptiles (Nos 169–171), 81 of fishes (Nos 172–251) and 14 of invertebrates (Nos 252–261), making a total of 271 drawings (some folios given as a and b). Some species are represented by more than one drawing and there are also a number that are not formally described in the *Descriptiones animalium*, hence their added importance. The total might seem small for three years' work, but Hoare (1976 : 104) has pointed out that only 290 days, or just over a quarter of the voyage, was actually spent at anchor or on short landings, so that the Forsters were hard put to collect, record, preserve, describe and draw the wealth of material that they discovered. In addition, one should not forget the botanical collecting and the tedious pressing of specimens, nor the 301 drawings of plants made by George Forster. Forster's *Journal* gives a graphic account of the wet and cramped conditions of their cabin (see Hoare, 1976 : 87–88) and it is clear that careful draughtsmanship was more easily achieved on shore.

Most of the drawings seem to have been made on the spot and while the material was fresh,

but a few were evidently worked up afterwards. For example, Lysaght (1959 : 299) noted four bird drawings that are dated after the *Resolution* had left the Cape of Good Hope (Nos 112, 115, 116, 129) and she concluded that they must have been completed at sea.\* Despite the conditions on board, it is still a little surprising that more of the zoological drawings were not worked up in the intervening periods. Only 155 of the drawings can be considered complete, 36 have some colour added (often little more than an indication), but 80 are mere pencil sketches (occasionally with ink or brown crayon as well). Only very rarely did George Forster write an indication of the colours on the drawing, so that it is hard to see how they could have been worked up later (which was surely the intention).

Backgrounds are supplied for a few of the drawings (14 birds, 6 mammals). For the mammals, this usually takes the form of a little hillock on which the animal stands, the colour being beige or brown with rather sharp and dark shadows. For the birds there is often a low and sloping foreground with small and curly lines of green or brown to suggest vegetation, but in two drawings there is a complete background of land and sky (Nos 32, 133), while in some of the sea birds there is an indication of water and sky (e.g. Nos 86, 89). In some of the pencil sketches there is a tentative background (e.g. Nos 39, 90, 120, 143). The number of unfinished drawings suggests that George Forster had no time for such embellishments and he probably also lacked the skill.

The drawings are on fairly heavy cartridge paper, originally of varying sizes but now mounted onto sheets that are trimmed to 64.6 × 46.0 cm, the paper being cut to expose both sides of the drawing. Occasionally there is a pencil sketch on the verso (e.g. No 191 *Perca grunniens*).† The annotations are almost always on the recto, but occasionally there is a note on the verso (e.g. No 32 *Falco serpentarius*, No 2 *Phoca antarctica*).

The name given to the animal is usually written in pencil immediately below the subject, presumably by George or his father when the description was complete and a name found; the generic name is sometimes in capital letters (of which a few are in ink) and the species name that follows it was probably added later. In many instances another species name follows the first or is written above it, with or without deletion of the first but often with an indication of the source of the name (e.g. *Bos Connochaetes* Mas., followed by *Antilope Gnu* S.N. XIII : 189, n. 25, being a reference to the 13th edition of Linnaeus' *Systema naturae* of 1788–92). Some of the other additional names are qualified by 'Brouss. Ichthyol.', being a reference to Pierre-Marie-Auguste Broussonet (1761–1807), who visited England in 1780 to work on fishes at Banks' house and at the British Museum and whose published *Ichthyologia* appeared two years later (Broussonet, 1782). Yet another source for names is 'MS Brit. Mus.' or merely 'MS'. This may refer to the manuscript descriptions begun by Daniel Solander (1733–82) as a result of his participation on the first Cook voyage and thereafter expanded, on little slips of paper, to cover the entire plant and animal kingdoms for a revised edition of the *Systema naturae*. Solander's zoological notebooks and slips, all now at the British Museum (Natural History), were listed by Whitehead (1969a : 185). In a few cases an addition to a drawing is followed by the initials 'JB' for Joseph Banks (e.g. No 232 *Salmo myops*, where the native name *Erai* is added).

The principal name on the drawings is usually that also used in the *Descriptiones animalium* and must have been written at the time. The references to the *Systema* must have been written after 1788–92, when Solander was dead and the Forsters were in Germany; they may have been written by Dryander, but perhaps by Latham, Pennant or other zoologists who studied the drawings. The Forster drawings were bought by Banks for 400 guineas in August 1776 (see Forster to Banks, 9 August 1776 in Dawson, 1958 : 339) and it is unlikely that J. R. Forster subsequently annotated them since he did not also change the names in the *Descriptiones animalium*. He left England in July 1780 and probably did not meet Broussonet, who in any case could not have worked through all the drawings by then. Thus, the references to the *Ichthyologia* were either by Broussonet himself, or more likely, by Solander who, as Banks' first librarian, would have had the drawings readily available.

\* Four of the botanical sketches made at Madeira in August 1772 are stated on the completed drawing to have been painted in February and March 1773, shortly before the ship reached New Zealand (Nos 45, 172, 175, 201).

† Most of the botanical drawings have been pasted directly onto sheets, but on the verso of four drawings where this is not so there are the beginnings of a pencil sketch of a bird (Nos 18, 78, 82, 154).

The other annotations on the drawings include the locality and date, presumably made at the time (bottom right); very occasionally a note on provenance or colours (bottom left or centre); a native name, with diacritic marks to show pronunciation (usually bottom left or centre, occasionally at the top); a reference in the case of fishes to Schneider's *Systema Ichthyologiae* (e.g. 'Schn. 178' – bottom left or right); a reference in the case of birds to John Latham's *General Synopsis of birds*, 1781–86 (with or without a reference also to the *Systema Naturae*); and finally, in ink, the name 'Ge Forster' written by Dryander (extreme bottom left, but sometimes partly or completely trimmed off).

The drawings are now arranged systematically and numbered 1–261 consecutively through the two volumes (top right). It is not clear if they were in this order when Banks received them or at what date they were numbered and bound. Possibly they were still loose and in folders when Lichtenstein edited the *Descriptiones animalium*, hence he could not cite drawing numbers.

### The artists

Nothing is known of George Forster's artistic training, but he seems to have had a natural talent for drawing that was reinforced by whatever encouragement he received from his brief periods at school or from his father. However, his ability to draw seems to have been decisive in the Admiralty's appointment of him as official natural history artist on the voyage (see Steiner & Baege, 1971 : 53). Anders Sparrman (1748–1820), the naturalist who was engaged by J. R. Forster at the Cape, later wrote envying George his 'drawing hand' (T. Forster, 1829 : 675).

The earliest drawings from the voyage, dating from August 1772 when George was not yet eighteen, show good observation and neat draughtsmanship. As the voyage progressed, one gets the impression that the pencil work becomes surer and more fluid, although even at the Cape of Good Hope (30 October–22 November 1772) the several pencil sketches of a gnu drawn from life are bold and at times fully confident. On the other hand, his finished and fully coloured mammal drawings from the Cape are often small, restrained and even a trifle wooden, in striking contrast to some (but not all) of his finished and coloured bird drawings. Aesthetically, his most pleasing drawings are the large pencil sketches or the drawings of sea birds where only a wash of colour has been applied. He rarely used pen and ink, but one botanical drawing (No 60) shows that he was quite confident in this medium.

Over half the drawings are of birds and a third are of fishes, and in these groups he drew three-quarters of all the species described. Although the zoology of the voyage was dominated by birds and fishes, as can be seen from the descriptions, there was still plenty of scope for invertebrate studies. In fact, only 13 invertebrates were described, of which 5 were said to have a drawing, and there are 14 invertebrate drawings. To some extent this may have reflected J. R. Forster's interests and thus his instructions to his son; certain invertebrates, such as crabs, molluscs and insects, could be fairly easily preserved and drawn later, but the paucity of descriptions suggests that this was not the intention. To judge from the success of the drawings, it would seem that George was happiest with birds, interestingly-shaped fishes and plants, excelling at lines and contours but lacking the facility for colour-work so evident in Parkinson's drawings from the first voyage.

Two of the early drawings (Nos 254 *Doris laevis*, 259a *Medusa pelagica*) are signed with a pencilled monogram 'GF'. There are also a number of bird drawings, all with a foreground sketched in colour and dating from the stay at the Cape, which also have this monogram (Nos 112, 115, 116, 118, 129).\* Thereafter, the drawings are unsigned, but while most are clearly the work of George Forster, there were in fact other hands at work.

Lichtenstein (1844 : XIII) seems to have been the first to point out that the formula 'Fig. pict. G.' is not invariable in the *Descriptiones animalium*, being replaced sometimes by 'Fig. pict. F.'. The first, he stated, referred to 'Georgium filium', while the second 'vero Forsterum ipsum significat'. There are 7 cases of 'Fig. pict. F.' (fishes Nos 191 recto and verso, 229, 231, 241 lower; mammals Nos 17, 18a). All are pencil drawings and although quite competent lack something of

\* Nine of the finished botanical drawings are signed in this way (Nos 5, 45, 103, 108, 120, 156, 172, 175, 201). All of them seem to have been completed in New Zealand or shortly before their arrival there in March 1773.

the artistic flourish of his son's drawings. The earliest is a fish drawn at the Cape Verde Islands in August 1772, while the two mammal drawings were done at the Cape two months later. Possibly J. R. Forster did these to show his son what was required of a scientific representation. He seems to have attempted no more drawings until their visits to Tahiti and Tanna in mid-1774, when he drew four more fishes, possibly because of pressure of time. In two cases (Nos 241 lower *Trigla asiatica*, 191 verso *Perca grunniens*) George later made a neat copy, probably traced (Nos 241 upper, 214). In three further cases the drawings are given a joint attribution as 'Fig. pict. F. et G.' (fishes Nos 196 *Harpurus nigricans*, 183 *Blenniuss gobioides*; bird No 162 *Motacilla seticauda* – all 1774). Presumably, J. R. Forster made the original drawing, which was finished and coloured by George.

Another indication, given twice in the *Descriptiones animalium*, is 'Fig. picta Schum.' and 'Fig. picta Schumacher', which refers to three bird drawings (Nos 69 and 70 *Anas montana* ♀ and ♂, 115 *Ardea palearis* – all from the Cape). It was argued by Lysaght (1959 : 299) that since the last drawing has George Forster's monogram on it 'we can scarcely doubt that he was the artist'. However, there is no reason why George should not have finished off the drawing and, in conformity with the other bird drawings from the Cape, have put his name to it. I have been unable to find any contemporary reference to the name Schumacher in the documents examined and Lysaght (1959) seems to have had no success either. However, in Catalogue B (see below, p. 32) there is a note against *Anas montana* which states that 'Mr Forster has a drawing in colour made by a [word begun but deleted] soldier at the Cape'. This evidently refers to Schumacher, who was perhaps an amateur naturalist and artist and possibly a friend of Sparrman's. In fact, a Johannes Schumacher is listed as a Cape artist in the period 1776–77 by Gordon-Brown (1952 : 117) and it is said that 56 out of 66 of his pictures in the Swellengrebel Collection at Breda have been reproduced. This must surely be the same man.

A third and most interesting attribution in the *Descriptiones animalium* is the single reference to 'Fig. pict. Hodges', which refers to drawing No 109 *Larus scopelinus*, described on 13 April 1773 at Dusky Bay, New Zealand. This was evidently drawn by William Hodges (1744–97), official artist on the *Resolution* for landscapes and people. For several reasons this picture is significant.

In the first place, this Hodges drawing emphasizes an already documented case of cooperation between George Forster and Hodges, for on another bird drawing (No 32 *Falco serpentarius* from the Cape) Dryander has written on the verso 'Ge. Forster. the background by Hodges'. This is not stated in the *Descriptiones animalium*, but a note in Catalogue B reads 'The Background by Mr Hodges', which is certainly a statement originally made by either J. R. or George Forster. Joppien (1976 : 10) has argued cogently that this may not have been the only occasion when Hodges supplied a background, since in another Cape bird (No 133 *Otis afra*) there is a stylistically almost identical background; unfortunately, there is no confirmation of the latter in Catalogue B. Joppien goes on to suggest that the little hillocks for some of the Cape mammals (Nos 17 *Antelope tragulus*, 18b *Antelope pygarga*, 29 *Antelope oreotragus*) seem to 'exhibit landscape elements in Hodges' familiar style', while the skies in some of George's sea bird drawings also bear a close similarity to those in Hodges' paintings.

Secondly, this drawing by Hodges suggests that the latter, ten years older than George Forster and an experienced draughtsman, took an interest in the boy's work and could well have offered him advice, the drawing perhaps being by way of illustration. In fact, the drawing could well be mistaken for one of George's later drawings of sea birds, so that perhaps he was influenced to adopt this large and rather vigorous technique.

A third point of interest is the bearing that this Hodges' drawing may have on J. R. Forster's inclination to defend his son's natural history territory. George seems to have got on well with Hodges, but in his subsequent account of the voyage he commented a little scathingly that the print from Hodges' drawings of Christmas Sound contained a falcon in the foreground that 'from its supernatural size, seems to resemble the rukh, celebrated in the Arabian tales, more than any bird of less fanciful dimensions' (G. Forster, 1777, 2 : 494). William Wales, astronomer on the *Resolution*, seized on this in his *Remarks* and used it also as a means to sneer at J. R. Forster's treatment of so affable and polite a man as Hodges, alluding to an occasion when

Mr. Hodges had once before . . . experienced the Doctor's *candour* and *politeness*, on attempting to draw a penguin for his amusement, or, perhaps, for his improvement; I am verily persuaded it was not with any design to *rival* Mr. George Forster. (Wales, 1778 : 99)

In George Forster's *Reply to Wales' Remarks*, he allows 'great merit' to Hodges as a landscape painter 'but I think too well of him, to be apprehensive, that he will lay a claim to anything more' (G. Forster, 1778b : 39). George was also critical of Hodges' figure work (G. Forster, 1777, 1 : 427), but the context in the *Reply* is surely natural history. However, the fact that J. R. Forster gave credit to Hodges in the *Descriptiones animalium* argues that the Doctor, although careful to preserve his son's official position, was quite prepared to acknowledge a contribution by Hodges. One gets the impression that George, while heeding his father's insistence of scientific accuracy, saw no reason why Hodges should not sketch in a background or offer advice.

Finally, this Hodges drawing, as well as the backgrounds in the other drawings, can be seen in relation to the presentation set of gouaches on parchment which were copied after the voyage from George Forster's drawings and intended as a gift for George III. Only 'about thirty' of these copies were completed before the offer was rejected by the king, but by then George Forster claimed that a hundred guineas had been paid 'to employ a painter to copy my sketches' (G. Forster, 1778a : 7). These gouaches were eventually sold in 1781, through the good offices of no less a person than Goethe, to Duke Ernst II of Saxe-Gotha-Altenburg for eighty louis d'or. The story is documented by Steiner & Baege (1971 : 63), who showed that 24 of these presentation gouaches are now in the Gotha Forschungsbibliothek (2 mammals; 20 birds, which they reproduce as pls 1-20; and 2 fishes). Two other gouaches, formerly part of the Gotha collection (bird, fish), were sold in 1936 and were on sale again in London forty years later (Joppien, 1976 : pls A, B). In addition to the gouaches, the Gotha library also acquired 6 botanical drawings on paper, possibly part of the collection sold by George Forster's widow Therese to Duke Ernst II in 1797 (Steiner & Baege, 1971 : 66, note 47). There are also six Forster drawings on paper at the Schlossmuseum der Staatliches Kunstsammlung in Weimar (KK 499-504 - all birds, of which three match pls 2, 3, 7 in Steiner & Baege, the fourth is their pl. 23, and two are European birds). In addition, there are two drawings of penguins in the Universitätsbibliothek in Jena (Steiner & Baege's pls 21, 22). A list of all these drawings is given here (p. 46).

The artist employed to make the gouaches has never been identified and his (or her) name was not found by Hoare in all the manuscript and published material that he examined. Joppien (1976 : 10-11) has drawn attention to the stylistic difference between the subjects (very finely painted) and the backgrounds (much broader treatment, sometimes carelessly overlapping subject or frame), and he noted that the backgrounds had much in common with Hodges' known style, as well as with some of the backgrounds referred to here. It would seem very reasonable that the Forsters should ask Hodges to lend an authentic touch to the backgrounds since the latter had made numerous studies for his own purposes. The subjects, on the other hand, are very far removed from Hodges' style, at least to judge by the single bird drawing, and he was surely not the copyist employed. However, there were in London a number of talented natural history artists who would have been glad of such employment. E. M. da Costa, for example, had employed William Humphrey, John Wicksteed and Peter Brown a few years earlier to draw shells (Whitehead, 1977) and there were men like John Frederick Miller, Peter Paillou, Frederick Nodder and others who would have welcomed both the money and the prestige of such a commission.

Although George Forster in no way rivals such masters of natural history drawing as Paillou, Nodder and the Bauer brothers, his achievement is remarkable considering his youth, lack of training and eventual career as a literary man. His father's drawings are careful, even hesitant, as befits a scientific man; by contrast, the best of George's are accurate but vigorous and assertive, as if presaging the scale on which his future literary talents would roam.

### Banksian catalogues of drawings

Since Banks' residence at 32 Soho Square served virtually as a natural history museum (and certainly had one of the finest natural history libraries in the country), Banks himself seems to have been very conscious of the need for catalogues. Dryander's monumental *Catalogus biblio-*

*thecae historico-naturalis* (1796–1800) has brief references to some of the series of drawings in Banks' collection (Forster drawings in vols. 2 : 17 and 3 : 69), but there are five contemporary manuscript catalogues now in the British Museum (Natural History) which list the zoological drawings from the Cook voyages. The first and most comprehensive is by Dryander, the second (dealing only with the Forster drawings) is probably by Solander and the third is an abbreviated version of the second; the fourth, by Dryander, deals only with the third voyage, and the fifth lists specimens related to drawings from the second and third voyages.

### Catalogue A

*MS. Catalogue drawings of animals Dryander* (on spine)

Title page: J. Dryander's manuscript catalogue of the drawings of animals in the library of Sir J. Banks arranged in systematic order (ink)

251 ff (numbered), 32.5 × 20.3 cm, BMNH., Zoology Library, 89 f d.

A second (unnumbered) page gives an alphabetical list of abbreviations used for localities, as well as a list of six symbols used against each entry to denote the state of the drawing, i.e. finished, with (×) or without (+) colour; sketch, with (/) or without (–) colour; copy upon transparent paper (○); from a spirit preserved specimen(s).

The entries are arranged systematically, apparently following the 12th edition of the *Systema naturae* (1766). Each entry begins with a symbol of its state, followed by the name of the animal and author (but in many cases a generic name only), the abbreviated locality, the artist, and finally in some cases a literature reference.

Attributions are made to the following 37 artists: P. d'Auvergne, J. Backström, Barnes, Bolson, P. Brown, A. Buchan, J. Cleveley, N. Dance, T. Davies, G. Edwards, W. Ellis, Engleheart, G. Forster, F. Frankland, S. Gilpin, J. Greenwood, W. King, G. Metz, J. Miller, J. F. Miller, U. Mole, F. P. Nodder, P. Paillou, S. Parkinson, Chev. Pinto, Roberts, J. van Rymdyk, A. Schouman, J. E. de Sève, J. Sowerby, Spalding, H. Spöring, J. Stuart, G. Stubbs, W. Watson, J. Webber, G. Wright.

Both Hodges and Schumacher are absent from this list, which suggests that the Forster and other drawings were in folders and Dryander merely took the names from the folders without consulting a list such as the Forsters must have supplied. This is further borne out by the absence of a locality for certain Forster drawings, even though such is entered on the list given in Catalogue B. Dryander had presumably forgotten or felt that it was unnecessary to mention Hodges' contribution to the background of one Forster drawing.

### Catalogue B

*M.S. Catalogue of Forster's drawings, Cook's 2nd voyage, 1772–75.* (on spine)

Title page: nil

28 ff (numbered), 32.0 × 20.0 cm, BMNH., Zoology Library, 89 f F.

The entries are arranged systematically (approximately the same as in Catalogue A). Each entry has the name of the animal, followed by the locality and below this often the common name and a size indication (most often 'Nat. Size'); below this again there are sometimes notes or 'Obs.'

The list was not written by either J. R. or George Forster since the former is referred to in the third person, e.g. 'Mr Forster has a drawing in colour . . .' and 'The largest Mr Forster saw . ..'. The writing closely resembles Solander's, but the list appears to have been carefully copied from one supplied by the Forsters.

The list refers to 19 mammals, 127 birds, 3 reptiles, 75 fishes and 14 invertebrates. In some cases more than one drawing is noted, so that the totals are not far short of those of the existing drawings.

The notes are a useful supplement to the data written on the drawings (locality, size, colour). Occasionally there are comments on the method of capture, habits, habitat and the accuracy of the drawing. References to Hodges and Schumacher in this list have already been mentioned (see above, p. 30). Extracts from these notes have been included here where they add data not on the drawing.



**Catalogue C**

[Bound in immediately after the preceding]

Title page: nil

21 ff (numbered), same size, etc. as before.

The first page has a pencil note across the top 'Catalogue of drawings of animals collected on Cook's 2<sup>d</sup> voyage by Geo. Forster'.

The entries are in the same hand as in the previous list, but they are arranged in a slightly different order. Each entry is preceded by a symbol (ticks in one column, crossed dashes in another), followed by the name of the animal and an abbreviation for its locality. The ticks and dashes seem to have been crossed off as if compared with another list or with the actual drawings themselves.

The list refers to 19 mammals, 132 birds, 3 reptiles, 76 fishes and 14 invertebrates; it appears to be directly related to the previous list, the one being derived from the other, or both from the same source.

**Catalogue D**

Unbound

Title page: (not contemporary) MS. Catalogue of the Birds and Fishes in the Drawings of J. Webber and W. W. Ellis, made during Capt. Cook's third voyage round the World, 1776–80, with descriptions and localities.

11 ff (pages numbered), 32.3 × 19.3 cm, BMNH., Zoology Library, 89 f S Sol. Z.6.

The first part (pp. 1–16), probably by Dryander, contains 161 numbered entries (and some additions) dealing with birds and 2 mammals. For each is given the number of specimens, the artist, the name of the species and its locality. There are listed 92 Ellis drawings and 37 by Webber, being those respectively in the British Museum (Natural History) and the British Museum, Department of Prints & Drawings (see above, p. 26).

The second part (pp. 17–22), possibly by Solander, contains diagnoses and lists of species for three fish genera (*Labrus*, *Perca* and *Sparus*).

Of specimens listed in the first part, there are 220 birds and 3 mammals, presumably then in Banks' collection.

**Catalogue E**

Unbound

Title page: 4 MS. Catalogues of the Birds in the Drawings of J. G. A. Forster & W. W. Ellis [& Webber] from Capt. J. Cook's second voyage, 1772–75, and third voyage 1776–80.

24 ff (in four parts, each numbered separately), 32.3 × 19.3 cm, BMNH., Zoology Library, 89 f S Sol. Z.3.

Part 1. 15 ff (numbered), containing 185 numbered entries giving the name of a bird, a brief Latin diagnosis, usually a locality, sometimes a reference as 'Sol. Cat.' to the number of the species in Catalogue D, and finally a number (up to 5, probably being the number of specimens). The first page is headed 'Birds taken from the last voyage to be carried to the end of the Kingfishers'. A whole page containing Nos 115–121 is missing, but these can be found in Part 2 (which is in the same order).

Part 2. 5 ff (10 numbered pages), containing 121 numbered entries (as in previous list).

Part 3. Single page, virtual repeat of the above but with extra entries 1a, 5a, 6a, 6b, 8a.

Part 4. 3 ff (pp. 4 and 5 numbered), containing 65 entries, similar to the previous lists but the order different.

These appear to be lists, in Dryander's hand, of bird specimens in Banks' collection, not only from the second and third Cook voyages but also from Banks' voyage to Newfoundland and Labrador in 1766 and from Masson's journeys in South Africa in 1772–76.

In addition to these five catalogues, there is a fourth which is a small notebook (17.5 × 11.5 cm) kept with the others and containing a list of all the Parkinson, Forster and Ellis bird drawings in the British Museum (Natural History). Each entry contains the drawing number, locality and

name used for the bird by Latham, Gmelin and Forster (and occasionally also by later authors). The paper is watermarked 1859 and the list may have been compiled by J. R. Gray since an incomplete catalogue of his papers occurs at the end, together with a note on exchanges of specimens with the 'Warsaw Museum' in 1874-75.

### George Forster's *Observationes*

The Bibliothèque Centrale of the Muséum National d'Histoire Naturelle in Paris possesses a small notebook (MS. 189) in which George Forster wrote day-to-day notes on the animals and some plants seen on the voyage in 1772 and during their stay at Dusky Bay (26 March-11 May 1773). The book is 18.1 × 11.7 cm and the title page reads:

Observationes / Historiam Naturalem / Spectantes / quas / in / Navigationes Terras Australes / instituit / coepit / G.F. / Mense Julio, Anno CIOICCOLXXII

The earlier pages are numbered 1-54 (55-72 missing), 73, then 74-101 unnumbered, followed by two further unnumbered pages written in pencil (species 'in insula Ulietea'; not examined). The itinerary is paged in the following manner:

p. 1	13-22 July 1772	Bay of Biscay
p. 2	24 July	Between Spain and Madeira
pp. 3-9	30 July-1 August	Madeira
p. 10	2-13 August	Madeira to Cape Verde Islands
pp. 11-15	14-16 August	St Jago
pp. 16-41	17 August-30 October	St Jago to Table Bay
pp. 42-53	22 November-1 January 1773	Table Bay to Antarctic waters
p. 54 (blank)		
pp. 55-72 (missing)		
pp. 73 [74-101]	26 March-3 May 1773	Dusky Bay

The notes are written in English up to p. 54 and contain mostly fairly brief observations on species seen, sometimes with data or even species not given in the *Descriptiones animalium*. The longer notes are usually concerned with birds, as for example the swallow that George befriended and kept in his cabin (pp. 16, 18, 19). There is also a long and excited description of *Noctiluca* (pp. 40-41). In one of the very few personal notes, George records his toothache of October 1772 which 'swelled my gums and cheek prodigiously' (pp. 27-28). Unfortunately, the notebook was set aside at the Cape, so that none of the mammals is mentioned. The Dusky Bay section contains full Latin descriptions which have been crossed out by one or more vertical or diagonal lines, presumably when the information had been transferred to the *Descriptiones animalium*. The contents of the notebook were recently published in the section 'Fragmente' (pp. 93-107) of the fourth volume in the series *Georg Forsters Werke* (Kahn *et alii*, 1972).

One of the few to use this notebook was Dance (1971) in his very thorough paper on the conchology of the Cook voyages. Not only is it a useful document for the supplementary information that it contains; it also shows the extent that George Forster participated in the natural history observations, no doubt encouraged and helped by his father, but with a degree of enthusiasm that lends further authority to his drawings.

### The Forster animal drawings in the British Museum (Natural History)

The list given here omits the Forster bird drawings since they were very adequately documented by Lysaght (1959 : 280-310). The remainder are placed in major groups (mammals, reptiles, fishes, invertebrates) and thereafter are arranged alphabetically by the original (or principal) name on the drawing; the latter is usually that given also in the *Descriptiones animalium*, but where they differ a cross-reference is given, as also for alternative names on the drawing or in Catalogue B. Scientific names have been italicized, but spelling and punctuation have been retained.

The name is here preceded by the folio number of the drawing. All annotations on the drawing are included, with an oblique to separate items apparently written at different times, or in different

hands, or on different parts of the paper. Unless stated otherwise, the annotations are in pencil. Similarly, at least some colour has been applied to the drawing unless stated 'uncoloured' (i.e. pencil sketch).

The second element in the description begins 'DA' and gives the page number and name in the *Descriptiones animalium*, as well as any other relevant data, such as date or locality if these are not on the drawing; if an exact date is not possible, then a range of dates is given from the itinerary of the voyage (see Lysaght, 1959 : 362–365). Forster's attribution 'Fig. pict. G.' is omitted, but reference is made to 'Fig. pict. F.', 'Fig. pict. Hodges' and to other variants.

The third element begins 'Cat. B' and contains any information from Catalogue B that is not already on the drawing; species names have again been italicized, but spelling and punctuation retained.

The fourth element begins 'Obs.' and gives the page number, date and locality in George Forster's *Observationes* wherever his notes can be correlated with one of the drawings.

A final element refers to the Gotha gouaches, reproductions, etc.

The fate of the specimens brought back from the Cook voyages is extremely complex (Whitehead, 1969). Very many have disappeared without trace, while for those that can be located there is often an element of doubt whether they are indeed the specimens described or merely duplicates. For this reason, no attempt is made here to indicate virtual or even actual iconotypes.

### Mammals

17. *Antelope Tragulus*  $\alpha$ . *Melanotes* / *redunca* S.N. XIII : 184 ? / Greis-bock in Dutch (and on verso a note of ? locality).  
DA p. 36, *Antelope tragulus* F, Fig. picta F, 30 October–22 November 1772; also DA p. 374 (second visit to Cape), 23 March–27 April 1775.  
Cat. B: Obs The other Variety the [word missing] or the common *Antelope Tragulus rupestris* of Forster, has brown ears and no white hairs intermixed; of which a Figure Pict. under the name of *Capra rupestris* – by the Dutch called Stein Bock – from generally living on high Hills, & Mountains. Obs. The *Melanota* lives on the plains.  
*Antelope dorcas* (see *Antilope pygarga*)  
*Antelope oryx* (see *Antilope oreas*)  
*Antelope pygargus* (see *Antilope pygarga*)  
*Antilope dorcas* (see *Antilope pygarga*)  
*Antilope gnu* (see *Bos connochaetes*)
30. *Antilope oreas* S.N. XIII : 190 / *Antilope Orix*.  
DA pp. 33, 379, *Antelope oryx* F (no drawing indicated; ? first or second visit to Cape).  
Cat. B: Elandt. The figured animal was lean & the Belly too strait.
29. *Antilope Oreotragus* S.N. XIII : 189. n. 26. / Klip Springer (and on verso) . . . from a dead animal  
DA p. 382, *Antelope oreotragus* F, 23 March–27 April 1775.  
Cat. B: Fig. fr a wild dead Animal.
- 18a. *Antilope Pygarga* S.N. XIII : 187 / *Antelope dorcas* (and on verso) . . . of Good Hope Tame.  
DA p. 34, *Antelope pygargus* Pall., Fig. picta F, 30 October–22 November 1772.  
Cat. B: Gregarious 2 Dr. from the Menagerie.
- 18b. *Antilope Pygarga* S.N. XIII : 187 / *antilope Dorcas*.  
DA (as above).
- 19a. *Bos Connochaetes*. Mas. / *Antilope Gnu* S.N. XIII : 189.n.25 / from a drawing in the possession of the Governor / at the Cape (and in ink) Copiã (uncoloured).  
DA p. 392, *Bos connochaetes* F; possibly also DA p. 40, *Bos poeophagus* F, 23 March–27 April 1775.  
Cat. B: 2 Copies. The other originals.
20. *Bos Connochaetes femina*.  
DA (as above).
21. (no caption; incomplete ink drawing over pencil; a copy of the previous one or taken from the next?)

22. (no caption; *uncoloured*, perhaps basis for previous one?)
23. (no caption; *uncoloured*, same animal recumbent?)
24. (no caption; *uncoloured*, same, unfinished)
25. (no caption; *uncoloured*, same, whole animal, hind quarters, head)
26. (no caption; *uncoloured*, same, hind leg)
27. (no caption; *uncoloured*, same, head)
28. (no caption; *uncoloured*, same, head)
19. (no caption; no attribution by Dryander bottom left; ? the same animal as 19a)  
*Bos poepagus* (see *Bos connochaetes*)  
*Capra rupestris* (see *Antelope tragulus*)
15. *Cervus Camelopardalis*, Linn. / *Camelopardalis Giraffe* S.N. XIII : 181 / Hanc figuram factam ad amusium picturae / apud Generos. Baron de Plettenberg, Gub. Capensis / emendavi in respectu capitis ex Capite explicato (*uncoloured*).  
 DA (not included).  
 Cat B: The small figure copied from an oil painting. The large [i.e. the next one] from Nature.
16. *Cervus camelopardalis* (written twice; *uncoloured*, head only).  
 DA (not included).
14. *Cervus porcinus* S.N. XIII : 179 / Hog Deer Tomah (*uncoloured*, head only).  
 DA (not included).  
 Cat. B: Female without horns. Menagerie at the Cape – supposed from India. The head of Natural Size.
31. *Delphinus Delphis*. © Octob. 9th. 1774.  
 DA p. 280, as *Delphinus delphis* Linn.  
 Cat. B: off Norfolk Isl<sup>d</sup> South Seas Female Bottle Nose.  
*Dipus cafer* (see *Yerbua capensis*)  
*Equus zebra* (no drawing).  
 DA p. 40, as *Equus zebra* (no drawing indicated).  
 Cat. B: *Equus Zebra* α Var. C. b. Sp. copied [i.e. Cape of Good Hope].
5. *Felis capensis* S.N. XIII : 81 (and on verso) Cape of Good Hope.  
 DA p. 362, as *Felis capensis* Penn., 4 April 1775.  
 Cat. B: Colour a little too bright or yellow. Obs. 2 Drawings Natural size.
6. *Felis capensis* S.N. XIII : 81 (*uncoloured*, whole animal and one foot).  
 DA (as above).
10. *Fossor capensis* Forst. / *Mus maritimus* S.N. XIII : 140.n.40 / *Spalax mordens* Linn. fil.  
 DA p. 32, as *Fossor capensis* F, 30 October–22 November 1772.  
 Cat. B: C. b. Spei. 3 Drawings Natural Size Burrows in Sand-plaines.  
*Fossor leucops* (see *Talpa leucops*)  
*Jerbua capensis* (see *Yerbua capensis*)  
*Mus capensis* (see *Talpa leucops*)  
*Mus dentex* (see *Talpa leucops*)  
*Mus maritimus* (see *Fossor* and *Talpa capensis*)
7. *Mustela galina* S.N. XIII : 95 / *Viverra amphibia* / Le Vansire (and on verso) Madagascar in the Cape Managerie.  
 DA (not included).  
 Cat. B: Madagascar – seen in the Menagerie at the Cape Le Vansire ? Buffon. Lives also in fresh Water. Fig. Natural Size.
2. *PHOCA antarctica* / *ursina* – *potius volans* (and on the verso) Dusky Bay / young animal / 8 to 10 feet in length.  
 DA p. 64, as *Phoca ursina* L, 31 March 1773.  
 Cat. B: Figure taken from a young animal. Gregarious. The largest in N. Zel<sup>d</sup> 6 feet. The same species in S<sup>th</sup> Georgia & Staten Island 10 feet long.

4. *Phoca jubata* / Staten Land D 2 Jan<sup>r</sup> 1775 (uncoloured).  
DA p. 137, as *Phoca tubata* F.  
Cat. B: New Year Isl<sup>d</sup> near Statenland Gregarious.
3. *Phoco leonina* Linn. Jany 17th 1775 (uncoloured).  
DA p. 313, as *Phoca leonina* (name only).  
Cat. B: South Georgia only 2 individuals seen.  
*Phoca ursina* (see *Phoca antarctica*)  
*Spalax capensis* (see *Talpa leucops*)  
*Spalax mordens* (see *Talpa capensis*)  
*Talpa asiatica* (see *Talpa versicolor*)
11. *Talpa capensis* Forst. / *Mus maritimus* S.N. XIII : 140.n.40 / *Spalax mordens* Linn. fil. / . . .  
Comment Petrop Journ. XIV p. 409 Tab. IX p conf. (and on verso) Cape of Good Hope.  
DA p. 32, as *Fossor capensis* F, 30 October–22 November 1772.  
Cat. B: [see comment under *Fossor capensis*].
12. *Talpa capensis* Forst. / *Mus maritimus* S.N. XIII : 140.n.40 / *Spalax mordens* Linn. fil. (uncoloured,  
sketches of head and feet).  
DA (as above).
9. *Talpa leucops* / *Mus capensis* S.N. XIII : 140.n.39 / *Mus dentax* / *Spalax capensis* Lin. fil. (and  
on verso) Cape of Good hope.  
DA p. 364, as *Fossor leucops* F, 2 March–27 April 1775.  
Cat. B: C. B. Spei Natural Size Lives in the same manner [as *Fossor capensis*] common near  
the Cape.
8. *Talpa versicolor* / — *asiatica* S.N. XIII : 111.  
DA p. 30, as *Talpa asiatica* Lin., 30 October–22 November 1772.
1. *Vespertilio tuberculatus*.  
DA p. 62, as *Vespertilio tuberculatus* F, New Zealand Bat, 22 May 1773.  
*Viverra amphibia* (see *Mustela galina*)
13. *Yerbua capensis* (and in ink) *Yerbua capensis* J. R. Forster in Wet. Acad. Handl. 1778. pag. 108.  
tab. 3 (and again in pencil) *Dipus cafer* S.N. XIII : 159 (drawing lightly squared up in pencil,  
perhaps by the artist who copied it for the gouache now in Gotha).  
DA pp. 365, 368, as *Yerbua capensis* F, 23 March–27 April 1775.  
Cat. B: C. B. Spei near Stellen bosch. Larger figure very little less than nature. 2 Drawings.  
Burrows in the ground.  
*Note*: the gouache copy on parchment is No. 2 in the Gotha series (see below, p. 46). The  
second of the two drawings mentioned was presumably that used in the description of the  
species by J. R. Forster (1778).

## Birds

(see list given by Lysaght, 1959 : 280–310)

## Reptiles

*Anguis laticauda* (see *Coluber laticaudatus*)

171. *Anguis platura*. Linn / Toona Tore / Taheite May 10th 1774.  
DA p. 229, as *Anguis platura*.  
Cat. B: . . . Nat. Size.
170. *Coluber laticaudatus* ♂ / Eboohee a-a-oorou / Off Traitor's head in Eromanga ♀. Aug. 3. 1774 /  
232 Scuta 2 Squ ante . . . 31 Squa . . . pone a . . . [several words illegible].  
DA p. 156, also 256–257, as *Anguis laticauda*.  
Cat. B: *Coluber laticaudatus* Linn. Oceanus pacif. prop. Insulam Eromanga. Nat. Size.
169. *Testudo imbricata* Linn. / Namoko I.  
DA p. 247, as *Testudo imbricata* (name only).  
Cat. B: Dr. from a small specimen.

## Fishes

236. *Atherina lacunosa* / Brit. mus. / Caledonia. ♀. 9th Sept. 1774 (uncoloured, with sketch of head in ventral view).  
DA p. 298, as *Atherina lacunosa* F.  
Cat. B: Lacuna on top of the . . . [? nose] Silvery Nat Size.
246. *Balistes fimbriatus* / oiri / *Balistes vidua* mss. a'leé Tua / Otaheitee.  
DA (not included).
247. *Balistes scaber* / bāddeek / Queen Charlotte Sound / New Zealand (uncoloured).  
DA p. 152, as *Balistes scaber* F, 2–25 November 1773.  
Cat. B: Nat Size.  
*Balistes vidua* (see *Balistes fimbriatus*).
187. *Blennius capensis* / *Blenn. Superciliosus*. L. / Cape of Good Hope / Schn 175.  
DA p. 408, as *Blennius capensis* F, 22 March–27 April 1775.  
Cat. B: good Eating.  
*Blennius cornutus* (see *Blennius truncatus*)
186. *BLENNIUS fenestratus* (ink, then in pencil) he Tàrova / Dusky Bay / Schn 173.  
DA p. 124, as *Blennius fenestratus*, 3 May 1773.  
*Note*: the gouache copy on parchment, formerly in the Gotha series (see below, p. 46), was on sale in London in 1976 and was reproduced in the catalogue by Joppien (1976 : pl. B).
183. *Blennius gobioides* / running fish / Tanna ♀ 17th Aug<sup>t</sup>. 1774 : / Schn. 176 (uncoloured, three sketches).  
DA p. 283, as *Blennius gobioides* F, Fig. pict. F. et G.  
Cat. B: Skips and runs fast. Ob. 6 Natural Size Greyish.  
*Note*: in his *Journal* for 18 August 1774, J. R. Forster wrote 'I drew & described this minute nimble animal'.
184. *BLENNIUS* (ink; then in pencil) *littoreus* / *Labrus gobioides* MSS ? (then in ink) S.C.Q.C.S.N.Z.  
D Oct. 24th. 1774 (then in pencil) Kògop / Schn 177.  
DA p. 127, as *Blennius littoreus* F, 7 April 1773; the dates are anomalous, but no other drawing exists.  
*Note*: reproduced in colour by Whitehead (1969b : pl. 30A).  
*Blennius superciliosus* (see *Blennius capensis*)
182. *Blennius truncatus*. / *cornutus* ? L. / o-hoò-o / Huahine. May 18th ♀ 1774 / Schn. 172.  
DA p. 231, as *Blennius truncatus* F.
185. *BLENNIUS varius* (ink, then in pencil) he kògop / Charlotte's Sound / Nov 9th / Schn 178  
DA p. 127, as *Blennius varius* F, 4 June 1773; the dates are anomalous, but no other drawing exists.
175. *CALLIONYMUS acanthorhynchos*. / Q. Charlotte Sound New Zealand. Kogohooe / Schn 41.  
(lower) DA p. 117, as *Callionymus acanthorhynchus* F, 13 April 1773.  
Cat. B: Nat Size.  
*Note*: reproduced in colour by Whitehead (1969b : pl. 29).
175. *Callionymus Trigloides* / Terra del Fuego. 1774. ☉ 25th December / Schn 44 (uncoloured).  
(upper) DA p. 358, as *Callionymus trigloides* F.  
*Callyodon coregonoides* (see *Sparus pullus*)  
*Chaetodon harpurus* (see *Harpurus literatus*)  
*Chaetodon lineatus* (see *Harpurus literatus*)  
*Chaetodon meleagris* (see *Harpurus inermis*)  
*Chaetodon nigricans* (see *Harpurus nigricans*)
197. *Chaetodon*. / *Speciosus* mss British mus. / *Ch. vagabundus* / Pārūhārāhā / Otaheite.  
DA p. 155, as *Chaetodon vagabundus* (name only).  
Cat. B: cfr Fig MS – and probably in Linn.  
*Chaetodon stellatus* (see *Harpurus guttatus*)  
*Chaetodon vagabundus* (see *Chaetodon speciosus*)  
*Clupea cyprinoides* (see *Clupea setipinna*)

243. *Clupea mystacina* / *setirostris* Brouss. ichthyol. dec. 1 / Tanna © 14th August. 1774 (uncoloured).  
DA p. 295, as *Clupea mystacina* F.  
Cat. B: Sea fish Nat. Size (and in another ink) *Clupea setirostris* Brouss. Ichthyol. Dec. 1.
242. *Clupea setipinna* / *cyprinoïdes* Brouss. ichthyol. dec. 1 / Tanna. © 14th August. 1774 (uncoloured).  
DA p. 296, as *Clupea cyprinoïdes* F.  
Cat. B: *Clupea setipinna* Tanna Herring colour Taken by angling in fresh water (and in another ink) *Clupea cyprinoïdes* Brouss. Ichthyol. Dec. 1 (the name also pencilled in).  
Note: reproduced in Whitehead (1969b : pl. 7).  
*Clupea setirostris* (see *Clupea mystacina*)  
*Clupea sinensis* (see *Mugil salmoneus*)  
*Cobitis gobioides* (see *Cobitis pacifica*)
231. *Cobitis pacifica* / *gobioides* ms otaheite p. 111 / o-òboo / Taheitee (uncoloured, lateral, dorsal and ventral view; inset is an earlier drawing, uncoloured, the same views, entitled) *Cobites pacifica*.  
DA p. 235, as *Cobitis pacifica*, Fig. picta F, 22 April–14 May 1774.  
Cat. B: 2 Dr. Nat Size brownish (and in another ink) *Gobioides* MS Otaheite p. 111.  
Note: the name *gobioides* is cited from p. 111 in the Tahiti section of the volume of ms descriptions by Solander (BMNH., Zoology Library, 89 o S – Sol. Z 1).  
*Cobitis pacifica* (see also *Coryphaena* / *Gobius strigatus*)
189. *Coryphaena*. / *Gobius strigatus* Brouss. Ichthyol / Taheitee / Schn 65 (uncoloured, sketches of whole fish and mouth).  
DA p. 235, a reference to *Gobius strigatus* under *Cobitis pacifica* F, but the description does not fit this drawing and must apply to No 231, which is labelled *Cobites pacifica*; thus, no description can be found for this drawing.  
Cat. B: . . . finely painted Specimen in Br. Museum (and in another ink) *Gobius strigatus* Brouss. Ichthyol.  
*Coryphaena fimbriata* (see *Coryphaena* / *Gobius strigatus*)
188. *CORYPHAENA Hippurus* (in ink; and in pencil) Atlantick Ocean.  
DA pp. 3, 155, as *Coryphaena hippurus* (name only), 7 August 1772.  
Obs. p. 22, 5 September 1772 (South Atlantic): Caught a Dolphin *Coryphaena Hippurus* . . . Drew . . . an outline of the Dolphin.
248. *CYCLOPTERUS pinnulatus* / More-àdoo / S.C.Q.C.S.N.Z. © 23<sup>d</sup> Oct 1774 (generic name in ink, rest in pencil; dorsal, lateral and ventral view, the last two uncoloured).  
DA p. 301, as *Cyclopterus pinnulatus* F.  
Cat. B: Nat Size.
172. *Echidna variegata* / *Muraena variegata* / *Muraena echidna* S.N. XIII : 1135 / Pipiro / Taheitee.  
DA p. 181, as *Echidna variegata*, 17 August–1 September 1773.  
Cat. B: Fig. MS. Eatable.
235. *Esox alepidotus* / he-pāra / Dusky Bay.  
DA p. 142, as *Esox alepidotus* S; 10 April 1773 in Forster's *Journal*.  
Cat. B: Fresh water fish In general not above  $\frac{1}{2}$  the size of the drawing also in the Rivulet in Ship Cove Totararine.
234. *Esox argenteus* / Silvery. Fins Blackish, a yellow spot under & at (deleted) in the base of PP & P.A. / *Polynemus* ? / Mōhee / Taheitee (uncoloured).  
DA p. 196, as *Esox argenteus* F, 17 August–1 September 1773; also, p. 257, Tanna (name only).  
Cat. B: Frequently caught in the seine at Tanna.
233. *Esox saurus* / he-eeeye / N.Z. Dusky Bay (No 1) March 27th 1773.  
DA p. 143, as *Esox saurus*.  
Cat. B: Willoughby's name.  
Obs. p. 75, 26 March 1773 (Dusky Bay): (Latin description).  
*Exocoetus evolans* (see *Exocoetus volitans*)
240. *Exocoetus volitans* / *E. evolans* L. / A. 1 / Atlantick (and in ink on verso the finrays are numbered; lateral view with below it an uncoloured dorsal view).  
DA p. 3, as *Exocoetus volitans*, Fig. pict. A.1.G., 13–19 July 1772; also p. 155, Pacific (name only).

- Obs. p. 10, 2–6 August 1772 (Atlantic): Had flying fish (*Exocoetus volitans* Linn) come flying upon deck and drew it.
180. *GADUS Bacchus* / Ehògòà / Q. Charl. Sound / Schn. 53.  
DA p. 120, as *Gadus bacchus* S, 18 May–7 June 1773.  
Cat. B: Night Walkers, because – caught at night with hook.
181. *Gadus colias*: – New Zeland Coalfish / *Perca* ? *colias* / hera-wårre / Schn. 54.  
DA p. 122, as *Gadus colias* S, 27 March 1773.  
Cat. B: Coal Fish – good Eating.  
*Note*: the gouache copy on parchment is No. 28 in the Gotha series (see below, p. 46).
178. *Gadus magellanicus* / Terra del Fuego ♀ December 21st 1774 / Schn 10 (uncoloured).  
DA p. 361, as *Gadus magellanicus* F.  
Cat. B: Nat Size.
179. *Gadus rhacinus* / mus. Britannic. / Queen Charlotte's Sound (uncoloured).  
DA p. 304, as *Gadus rhacinus* F, 29 October 1774.  
Cat. B: Dusky blackish.  
*Gasterosteus glaucus* (see *Psetta glauca*)  
*Gasterosteus rhombeus* (see *Psetta rombea*)  
*Gobius strigatus* (see *Coryphaena* / *Gobius strigatus*)  
*Harpurus glaucopareius* (see *Harpurus nigricans*)
198. *Harpurus guttatus*. / *Chaetodon stellatus* mss. Brit. mus. / Pa-à-a / Col olivaceo fuscus, postice puritis albis, oculor irides aurea, subtus corpus pallidus. / Taheitee / Schn. 215 (uncoloured).  
DA p. 218, as *Harpurus guttatus* F, about 15 March 1774.  
Cat. B: Brown with light blue spots.
199. *Harpurus inermis*. / *Chaetodon meleagris* mss. Brit. Mus. / Anamocka. / Schn 210.  
DA p. 286, as *Harpurus inermis* F, 28 June 1774.  
Cat. B: . . . anomalous.
195. *Harpurus lituratus*. Hasselqu. / *Chaetodon Harpurus* MSS. British museum / Eoòma tarei / Otaheite / Otaheite Epārähä *Chaetodon* / Schn. 216 (and on verso) vide Nieuhoff voy<sup>e</sup> in Churchill.  
DA p. 218, as *Harpurus lituratus*, about 15 March 1774.  
Cat. B: Hasselquist described this fish and of Linnaeus wrongly quoted *Ch. nigricans*.
194. *Harpurus monoceros* / *unicornis* Brouss / *Chaetodon Cornutus* MSS. British mus / Eooma oótoo / P.D. yellowish brown P.C. outer edge pale or greyish Scales as in the other species of this new genus / Oteheite / Schn. 181.  
DA p. 219, as *Harpurus monoceros* F, 10 May 1774 *fide* Forster's *Journal*.  
Cat. B: Nov. Genus a Linneo sub *Chaetodontidi* genere (and in another ink) *Balistoides Rhinoceros* MS. *Chaetodon unicornis* Broussonet.
196. *Harpurus nigricans* Linn (last two words deleted) / *glaucopareius* mss / *umbra* MSS / Parai / Otaheite / Schn. 212.  
DA p. 214, as *Harpurus nigricans* F, Fig. pict. F. et G., 15 March 1774.  
Cat. B: *Chaet. nigricans* Linn.  
*Harpurus unicornis* (see *Harpurus monoceros*)  
*Labrus gobioides* (see *Blennius littoreus* and *B. gobioides*)
239. *Mugil albula* ? / Dusky Bay (uncoloured).  
DA p. 145, as *Mugil albula* F; 21 April 1773 in Forster's *Journal*.  
Cat. B: not Linnei.  
Obs. pp. 85–87, 12 April 1773 (Dusky Bay): (Latin description).
238. *MUGIL cirrostomus* / Taheitee / Schn 121 (uncoloured, sketch of head from front).  
DA p. 198, as *Mugil cirrostomus* F, 17 August–1 September 1773; also, p. 257, Tanna (name only).  
Cat. B: also seen at Tanna (forte idem cum *M. albula* α.).
237. *Mugil salmoneus* / *Clupea Sinensis* L. ? / Tanna. 2 18th Aug<sup>t</sup> 1774 / Schn. 121. / Licht 299 (uncoloured).  
DA p. 299, as *Mugil salmoneus* F.



Cat. B: whitish.

Note: reproduced in Whitehead (1969b : pl. 8).

173. *Muraena caeca* Linn. ? (repeated) / Para-owtēe-Taheitee / Schn. 536 (whole animal and two uncoloured sketches of head in ventral and lateral view).  
DA p. 230, as *Muraena coeca* ? Linn., 22 April–14 May 1774; also p. 247 (name only).  
*Muraena echidna* (see *Echidna variegata*)  
*Muraena variegata* (see *Echidna variegata*)  
*Myxine glutinosa* (see *Petromyzon cirrhatus*)
174. *OPHIDIUM Blacodes*. Licht. Forst. p. 115 / Ehokh / New Zealand / Schn 484.  
DA p. 115, as *Ophidium blacodes*, 13 April 1773.  
Obs. pp. 92–95, 13 April 1773 (Dusky Bay): (Latin description).
219. *Perca boops* / St Helena / Bull-Eye / E-òo – Omai / Mus. Brit. / Licht 411 (uncoloured).  
DA p. 411, as *Perca boops* F, 16–21 May 1775.  
Cat. B: Reddish Omai said to be the same with Eòo otaheitensis.  
*Perca colias* (see *Gadus colias*)  
*Perca escaulatine* (see *Perca urodeta*)
213. *PERCA fulva* ms. / British mus. (uncoloured).  
DA p. 193, as *Perca fulva*, Tahiti; 17 August 1773 in Forster's *Journal*.  
Cat. B: Forgot the place.
191. *Perca grunniens* / Tanna Aug 13 1774 (uncoloured).  
(verso) DA p. 294, as *Perca grunniens* F, Fig. pict. F.  
Note: this is drawn on the back of *Zeus argentarius*.
214. *Perca grunniens* / see the original of this on the back of the drawing of *Zeus argentarius* / Tanna (uncoloured) (see previous picture, from which this was neatly copied).  
DA p. 294, as *Perca grunniens*.  
Cat. B: Obs. Fig copied from a drawing on the back of *Zeus argentarius*.
216. *Perca maculata* (deleted) *variolosa* ms. / EHèoa E Heeròa Eròee / Marquesas.  
DA p. 220, as *Perca maculata* F, 7–11 April 1774.
215. *Perca – polyzonias* / mss Brouss. British mus. / *vittata* Mss / Tääpe / Marquesas / Licht Forst 225.  
DA p. 225, as *Perca polyzonias* S, 7–11 April 1774.  
Cat. B: Fig. MS.
218. *Perca prognathus* / *Sciaena gadoides* / Pato-tëra / S.C.Q.C.S.N.Z. ♂ Oct. 25. 1774 / Schn 301 (uncoloured).  
DA p. 309, as *Perca prognathus* F, 15 October 1774.  
Cat. B: . . . because long under Jaw.
217. *Perca urodeta* / *escaulatina* ms / Terão- Mätápòo / Hoa / Marquesas.  
DA p. 221, as *Perca urodeta* F, 7–11 April 1774.  
Cat. B: . . . from the lines marked on the tail . . . Fig MS.  
*Perca variolosa* (see *Perca maculata*)
251. *PETROMYZON cirrhatus* / *Myxine glutinosa* ni faller JB. / he Toòna / New Zealand Charlottes Sound / Dusky bay / Schn. p 530 (whole fish with half-coloured ventral view of head).  
DA p. 112, as *Petromyzon cirrhatus* F, 8 April 1773.  
Cat. B: Obs. Mr Sparman says he has seen the same fish in False Bay near the C. b. Spei.  
*Pleuronectes meneus* (see *Pleuronectes pictus*)
192. *Pleuronectes pictus* / *meneus* / mss. British mus. / Bodé / Anamoka June 29th ♀ 1774 / Schn 161.  
DA p. 285, as *Pleuronectes pictus* F, 28 June 1774.
193. *Pleuronectes Scapha* / Mohòa / Charlotte's Sound. / Schn 163.  
DA p. 130, as *Pleuronectes scapha* S, 30 March 1773.  
*Polynemus quinquarius* (see *Trigla asiatica*)
229. *PSETTA Glauca* (in ink, then in pencil) *Scomber glaucus*. Linn. β. / A 4 / St Jago (uncoloured).  
DA p. 5, as *Gasterosteus glaucus*, Fig. picta A.4.F, 10–14 August 1772.  
Obs. p. 15, 15–16 August 1772 (St Jago): (name only).

- Note*: another and better drawing made on the return visit in May 1775 – see under *Scomber glaucus*, No 225; also under *Scomber maculatus*, No 228 (Tahiti).
220. *PSETTA rhombea* (in ink, then in pencil) *Gasterosteus rhombeus* / A 5 / St Jago / Licht Forst. 7, 257 / Schn. 33 *S. glaucus* (uncoloured).  
DA p. 7, as *Gasterosteus rhombeus*, Fig. picta A.5.G., 10–14 August 1772; also, p. 257, Tanna (name only).  
Cat. B: *Gasterosteus Rhombeus* St Jago *phps* a new genus silver colour all over also at Tanna, Ascension &c.  
Obs. p. 15, 15–16 August 1772 (S<sup>t</sup> Jago): (name only).
250. *Raja edentula* / Dark Red colour (meaning pelvic fin) / Light (meaning right pectoral fin) / Whai / Tahaiti. May 10th 1774.  
DA p. 227, as *Raja edentula* F; also, p. 256, Tanna (name only).  
Cat. B: Nat. Size.
232. *Salmo myops* / MB 14. P.D.12. P.V.18. PP.12. P.C.22./Erai JB. / ground spearing. St Helena. (uncoloured).  
DA p. 412, as *Salmo myops* F, 16–21 May 1775.  
Cat. B: called *Salmo* ob pinnam as posam – distinctum forte genus quod a . . . *Dentex* vocatum.
203. *Sciaena argyrea* / Tanna ♂ 16th Aug<sup>t</sup>. 1774 / Schn. 344 (uncoloured).  
DA p. 291, as *Sciaena argyrea* F, 15 August 1774.  
Cat. B: Natural Size.
208. *Sciaena aurata* / *Sparus pagrus* Linn. / Sc. lata . . . / ghoo-pàree / N.Z.Q.C.S. Oct. 18th ♂ 1774 (uncoloured).  
DA p. 307, as *Sciaena aurata* F.  
Cat. B: Obs. The fish that poisoned the Resolution's people at Malacolo was very like this, but somewhat narrower & of a darker red, bordering on purple.  
*Note*: in his *Journal* for 23 July 1774, J. R. Forster recorded the poisonous fish as '*Sparus erythrinus* or *Pagrus*', but seems not to have described it apart from its toxic effects (given under *Sparis* in DA p. 249).
205. *Sciaena ciliaris* / *salmonea* MS / Moghee / Dusky Bay.  
DA p. 137, as *Sciaena ciliaris* S, 26 March–11 May 1773.  
Cat. B: 2 Dr. The little drawing a little too blue. The larger drawing (i.e. No 209 below) natural large size.
209. *Sciaena ciliaris* / *salmonea* ms ? / S.C.Q.C.S.N.Z. ♂ 25. Octo. 1774 (uncoloured).  
DA p. 137 (see above).
212. *Sciaena cultrata* / *Scomber clupeioides* ms / British mus / Norfolk Island ♂ 11th Oct. 1774 / Schn. 343 Licht. 292 (uncoloured).  
DA p. 292, as *Sciaena cultrata* F, 10 October 1774.  
Cat. B: whitish.  
*Sciaena gadoides* (see *Perca prognathus*)
204. *Sciaena lineata* / Dusky Bay / Schn. 342 (part coloured with grey and yellow washes).  
DA p. 134, as *Sciaena lineata* S; 27 March 1773 in Forster's *Journal*.
207. *Sciaena macroptera*. / living subject / *Sparus carponemus* Brit. mus. / Queen Charlotte's Sound / Schn. 342 (an outline of fish on verso).  
DA p. 136 (as below).
206. *Sciaena macropteras* / *Sparus carponemus* Mus. Brit. / a dead subject / Taraghee / NZ (No 2) Dusky Bay March 27th 1773.  
DA p. 136, as *Sciaena macroptera* F.  
Cat. B: 2 drawings. a. fr a dead fish Dusky Bay b. fr a live – Head better Charlotte Sound (i.e. the previous drawing).  
*Sciaena mulloides* (see *Sciaena trutta*)  
*Sciaena salmonea* (see *Sciaena ciliaris*)  
*Sciaena sapidissima* (see *Sciaena trutta*)
210. *Sciaena trutta* / *sapidissima* / *Sciaena mulloides* / S.C.Q.C.S.N.Z. ♀ 7. N. 1774 (uncoloured).  
DA p. 147, as *Sciaena trutta* S, 18 May–7 June 1773; also, p. 279, October 1774 (name only).  
Cat. B: 2 Dr Grows to a large size.

211. *Sciaena trutta* / *Sciaena mulloides* ms. / inches  $8\frac{1}{2}$  long 2. broad  $1\frac{1}{4}$  head (uncoloured).  
DA p. 147 (see above).
226. *Scomber adscensionis*. Osbeck. / I. Ascension : May 28th ☉. 1775 / Cavalle at St Helena / Licht.  
412 (uncoloured).  
DA p. 412, as *Scomber ascensionis* F.  
Cat. B: *ascensionis* Osbeck – wrongly quoted by Linn. for *Scomber glaucus*.
224. *Scomber capensis*, Elft: / *Scomber saltatrix* / Cape of Good Hope (uncoloured).  
DA p. 413 (name in index, but absent from text).  
Cat. B: *capensis* C b Sp white.  
*Scomber clupeioides* (see *Sciaena cultrata*)
222. *Scomber dentex*. / *Scomber lanceolatus* ms / Måga / Q. Charlotte's Sound. / Licht 141 (un-  
coloured).  
DA p. 141, as *Scomber dentex* S, 18th May–7 June 1773.  
Cat. B: Pin maker Nantes because the dorsal spines very sharp 3 feet long Bony fish.  
*Scomber dimidiatus* (see *Scomber trachurus*)
225. *Scomber glaucus* Linn. / I. Ascension 28th May. ☉ 1775 (uncoloured).  
DA p. 5 (refers only to *Gasterosteus glaucus* of the previous visit to Ascension Island, in August  
1772 – see under *Psetta glauca*, No 229; see also *Scomber maculatus*, No 228).  
Cat. B :  $\alpha$ . best Ascension.  
 $\beta$ . St Jago (i.e. *Psetta glauca*, No 229) Silvery colour Linn.
227. *Scomber helvolus* / I. Ascension. May 29th. 1775. / Schn 35 (uncoloured).  
DA p. 415, as *Scomber helvolus* F.
221. *Scomber hippos* Linn ? Brit. mus. / Āhèè / Otaheite / New Zealand ? (uncoloured).  
DA p. 199, as *Scomber hippos* Linn. F, 17 August–1 September 1773; also, p. 155 (name only)  
and p. 413 (diagnosis, comparisons).  
Cat. B: *Hippos* ? Linn. Otaheite.  
*Scomber lanceolatus* (see *Scomber dentex*)
228. *Scomber maculatus* / *glaucus* L. (uncoloured).  
DA p. 195, as *Scomber maculatus*, Tahiti and environs, 17 August–1 September 1773.  
Note: see also under *Psetta glauca* No 229 and *Scomber glaucus* No 225, both from the Atlantic.  
*Scomber micans* (see *Scomber trachurus*)
230. *Scomber Pelamys* / Peerāru / A 2. / Atlantick (the finrays numbered in ink on the verso).  
DA p. 3, as *Scomber pelamys*; 12 August 1772 in Forster's *Journal*.  
Obs. p. 10, 13 August 1772 (Atlantic): Struck a Bonito (*Scomber Pelamys* Linn) and drew an  
outline of it. Also, p. 22, 3 September 1772: Caught a Bonito . . . finished my drawing of the  
Bonito.  
*Scomber saltatrix* (see *Scomber capensis*)
223. *Scomber trachurus* Varietas / *Dimidiatus* ms Brit. mus. / Brouss. / *micans* ms / Horsemackerel or  
Scad. – / nat size / Dusky Bay (uncoloured).  
DA p. 155, as *Scomber trachurus* (name only); also, p. 257 (Tanna, name only) and p. 413  
(diagnosis, comparisons).  
Cat. B: var. Linn. . . . N. Zei Dusky Bay.
190. *Scorpaena* / *SCORPAENA Cottoides* / *Cardinalis* MS / Enohùtara / NZ / No 8 Dusky Bay April  
1 1773 / Schn 196.  
DA p. 128, as *Scorpaena cottoides* F, 30 March 1773.  
*Scorpaena cardinalis* (see *Scorpaena cottoides*)  
*Sparis* (see *Sciaena aurata*)
200. *Sparus* – / *miniatus* / *Sparus miniatus* Licht. Forst. p. 289 / Ehuróa / Namoka.  
DA p. 289, as *Sparus miniatus* F, 27 June 1774.  
*Sparus carponemus* (see *Sciaena macroptera*)  
*Sparus erythrinus* (see *Sciaena aurata*)
201. *Sparus ornatus* / The green Dark, bluish – purple dirty or greenish cast. the blue spots & lines  
to strike out better. upper edge of dorsal fin of the same color as that of anal. / Pa-ow-oura  
(or perhaps Pa-ovo-ōora).

- DA (no species of this name under *Sparus*, *Labrus*, etc.).  
*Sparus pagrus* (see *Sciaena aurata*)
202. *Sparus pullus* / an *Callyodon Coregonoides* mss / Q Charlotte's Sound (*uncoloured*).  
 DA p. 306, as *Sparus pullus* F, 28 October 1774.  
 Cat. B: Blackish Sooty – *pullus*.
249. *Squalus striatus*. / *vittatus* ms. Specim. in mus. Britanic. / Cape of Good Hope (*uncoloured*, whole fish and sketches of head in dorsal and ventral views).  
 DA p. 407, as *Squalus striatus* F, 23 March–27 April 1775.  
*Squalus vittatus* (see *Squalus striatus*)
245. *Tetrodon hispidus*. Linn. / Hoóe-hooé Kills men / Raiatea. June 3<sup>d</sup> 1774.  
 DA p. 247, as *Tetrodon hispidus* (name only).  
 Cat. B: The Inhabitants say he is poisonous and kills Men.
244. *Tetrodon scleratus* / *Lagocephalus* ? / 18 PP. 12 P.D. 6.C. 10.A / Poemanghee. 1774. ♀. Sept. 7th / N. Caledonia / Schn 506 (*uncoloured*).  
 DA p. 282, as *Tetrodon scleratus* F; also pp. 254, 255, 257.  
 Cat. B: Poisonous. The effect lasted about 3 days – In a few hours a singular symptom took place viz not being able to distinguish at all of weights – e.g. between a feather & a quart pot.  
*Note*: the toxic effects of this pufferfish were more fully described by J. R. Forster in his *Journal* for 8 September 1774, as also in DA p. 254.  
 The gouache copy on parchment is No 27 in the Gotha series (see below, p. 46).
241. *Trigla asiatica* Linn. / *Polynemus quinquarius* Linn. / Òmā / Otaheite (*uncoloured*, a fair copy of an original sketch pasted below, entitled) *Trigla Asiatica* / *Polynemus quinarius* / Otaheite (*uncoloured*).  
 DA p. 236, as *Trigla asiatica* Lin., Fig. picta F, 22 April–14 May 1774; also, p. 247, Raiatea, 25 May–4 June 1774 (name only); also 20 August 1774 in Forster's *Journal*.  
 Cat. B: 2 Drawings *Polynemus quinquarius* Linn Probably twice described by Linn.
176. *URANOSCOPIUS maculatus* Vid descript. in MSS from new Zealand 1st voyage / New Zealand / Badée / Schn 49 (*uncoloured*, light brown crayon and pencil).  
 DA p. 118, as *Uranoscopus maculatus* F, 13 April 1773.  
 Cat. B: 2 Drawings.  
*Note*: reproduced in Whitehead (1969b : pl. 28).
177. *Uranoscopus maculatus* / Q Charl Sound (*uncoloured*, light brown crayon and pencil).  
 DA p. 118 (see above).
191. *Zeus argentarius* / Tanna Aug 13 1774 / Schn 96 (*uncoloured*).  
 (recto) DA p. 288, as *Zeus argentarius* F, Fig. pict. F.  
 Cat. B: on the same paper is *Perca grunniens* – Fine Silver.  
*Note*: on the reverse is the original sketch for *Perca grunniens* No 191 verso.

### Invertebrates

252. *CANCER* / Otaheite (*uncoloured*, enlarged but with life-size sketch above, also *uncoloured*).  
 DA p. 155 ? (i.e. *Cancer squilla*, name only); 30 August 1773 in Forster's *Journal*.  
 Cat. B: In the Rivers 4 little bigger than the small figure.
- 258a. *Clio conchacea* / Atlantick (*uncoloured*, four views).  
 DA p. 29, as *Clio conchacea* F, 12 October 1772.  
 Obs. p. 30, 12 October 1772 (South Atlantic): Caught several specimens of a new *Clio* (*Clio conchacea*).
- 261a. *CNIDE hyalina* (ink, and in pencil) Atlantick.  
 DA p. 12, as *Cnide hyalina*, 15 September 1772.  
 Cat. B: *Dagyra* MS.  
 Obs. p. 22, 8 September 1772 (South Atlantic): Also caught a new Zoophyte, which we called *Cnide hyalina*.  
*Dagyra volva* (see *Thalia lingulata*)
254. *DORIS laevis* (ink, and in pencil) *Doris l* / Atlantick / Sept. 4th 1772 / GF. (dorsal and ventral views).  
 DA p. 10, as *Doris laevis*, 5 September 1772.

Cat. B: Nat Size. Fig MS.

Obs. p. 22, 5 September 1772 (South Atlantic): Caught . . . *Doris laevis* . . . Drew the medusa, *Doris* . . .

*Doris radiata* (see *Glaucus atlanticus*)

- 254a. *GLAUCUS atlanticus* (ink, and in pencil) *Doris radiata* S.N. XIII. p. 3015.a.13. / Atlantick Ocean; on the Line.  
DA p. 11, as *Glaucus atlanticus*, 15 September 1772.  
Cat. B: *Mimus volutator* MS. Fig.  
Obs. p. 22, 8 September 1772 (South Atlantic): Caught a new genus of Mollusca & called it *Glaucus atlanticus*.
256. *Holothuria Physalis* / Atlantick (*uncoloured*).  
DA (not mentioned); 15 September 1772 in Forster's *Journal*.  
Obs. p. 24, 15 September 1772 (South Atlantic): Caught the Portuguese Man of War, *Holothuria Physalia* Linn. I drew an outline of it.
257. *Holothuria tentaculata* / tentaculis frondosis, verrucarum ordinibus quinque / Raietea May. 27. 1774 (*uncoloured*).  
DA (not mentioned).  
Cat. B: Ularetea Obs. Called Swallow & Berce de la Mer or Beche de Mer in the Moluccae where dried for Chinese markets. Figure in Forskål.  
*Medusa passiflora* (see *Medusa porpita*)
- 259a. *MEDUSA pelagica*. Linn. (ink, and in pencil) āwe-āwe Legs anohōrā Mōlth / Atlantick / Sept. 4th 1772 / GF (dorsal and ventral views).  
DA (not mentioned).  
Obs. p. 22, 5 September 1772 (South Atlantic): Caught . . . several *Medusa pelagica* . . . Drew the medusa.
- 258b. *Medusa porpita* / Atlantick (three views).  
DA p. 13, as *Medusa passiflora*, 27 September 1772.  
Obs. p. 25, 27 September 1772 (South Atlantic): Caught . . . another species of *Medusa* which appeared to be new.
- 259b. *Medusa velella* Linn / Hēma-hēmā / Atlantick.  
DA (not mentioned); 15 September 1772 in Forster's *Journal*.  
Cat. B: *Phyllodora velella* MS.  
Obs. p. 24, 15 September 1772 (South Atlantic): Caught a species of Blubber, by D. Browne called a Sallyman & by Linnaeus, *Medusa Vellella*.
260. *Medusa vesia* / *Medusa orbicularis* disco supra conregulari, limbo integerrima multiradiata, subtus disco concavo, margine villosa. / Poo / off New Zealand (*uncoloured*, dorsal and ventral views).  
DA (not mentioned).  
Cat. B: did eat it.  
*Mimus volutator* (see *Glaucus atlanticus*)
253. *Monoculus Squali* / Tierra del Espiritu Santo (*uncoloured*).  
DA (not mentioned).  
Cat. B: among the New Hebrides near Terra des Sp. Sat.  
*Note*: recorded by J. R. Forster in his *Journal* for 26 August 1774.
- 261b. Phosphorescent Animalicule. / a. natural Size b. magnified with No 4 c. ditto with No 1 / Cape of Good Hope (*uncoloured*, three different sizes).  
DA (not mentioned).  
Cat. B: see Cooks Voyage, & Forsters Voyage.  
Obs. p. 40, 29 October 1772 (off Table Bay): The Sea was illumined around us to a most extraordinary degree [then follows a long description].  
*Phyllodora velella* (see *Medusa velella*)
255. *Thalia lingulata* / *Dagyra volva* ms / In Oceano Atlantico / Febr. 16th 1775 (*uncoloured*, two views).  
DA p. 14, as *Thalia lingulata*.  
Cat. B: Ocean South fr the Cape b. Sp. high latitude 50° S. *Dagyra* MS.

## The Forster animal drawings in Gotha, Weimar and Jena

The following list has been compiled from the information given by Steiner & Baege (1971) and Joppien (1976). The names used here are those given in the *Descriptiones animalium*; for the Gotha series these are here preceded by the numbers used by George Forster in a German list of the drawings (dated 17 June 1780 at Cassel – reproduced by Steiner & Baege); Nos 24, 27, 28 do not occur in this list but are numbered according to another Forster list (in French – also now at Gotha).

F folio number of original Forster drawing  
 DA *Descriptiones animalium*, page number  
 S & B Steiner & Baege (1971)  
 J Joppien (1976)

### A. Forschungsbibliothek, Gotha (gouache on parchment)

1. [Antelope] Not seen; possibly based on F 30
  2. [Jerbua] Not seen, but evidently *Yerbua capensis*, on F 13, DA 365
  3. \**Vultur plancus*, on F 33, DA 321, J pl. A
  4. *Psittacus hysginus*, on F 42, DA 159, S & B pl. 1
  5. *Cuculus nitens*, on F 57, DA 151, S & B pl. 2
  6. *Alcedo cancrophaga*, on F 60, DA 4, S & B pl. 3
  7. *Certhia cincinnata*, on F 61, DA 78, S & B pl. 4
  8. *Certhia olivacea*, on F 62, DA 79, S & B pl. 5
  9. *Sternus carunculatus*, on F 144, DA 81, S & B pl. 6
  10. *Muscicapa dibapha*, on F 150, DA 267, S & B pl. 7
  11. *Muscicapa ventilabrum*, on F 155, DA 86, S & B pl. 8
  12. *Scolopax caffra*, on F 118, DA 49, S & B pl. 9
  13. *Rallus caffer*, on F 129, DA 50, S & B pl. 10
  14. *Tringa pyrrhetraea*, on F 120, DA 174, S & B pl. 11
  15. *Tantalus capensis*, on F 116, DA 48, S & B pl. 12
  16. *Tantalus melanops*, on F 117, DA 332, S & B pl. 13
  17. *Procellaria antarctica*, on F 95, DA 60, S & B pl. 14
  18. *Procellaria nivea*, on F 90, DA 58, S & B pl. 15
  19. *Procellaria similis*, on F 86, DA 59, S & B pl. 16
  20. *Diomedea alhatrus*, on F 99, DA 27, S & B pl. 17
  21. *Diomedea chrystoma*, on F 101, DA 24, S & B pl. 18
  22. *Diomedea palpebrata*, on F 102, DA 55, S & B pl. 19
  23. *Chionis lactea*, on F 125, DA 330, S & B pl. 20
  24. \**Blennius fenestratus*, on F 186, DA 124, J pl. B
  27. *Tetrodon scleratus*, on F 244, DA 282
  28. *Gadus colias*, on F 181, DA 122
- \* Sold 1936; offered for sale 1976 by Hartnoll & Eyre in London (see Joppien, 1976).

### Schlossmuseum, Weimar (watercolour on paper)

- KK 449 *Charadrius glaucopus*, on F 123, DA 176, S & B pl. 23  
 KK 500 *Alcedo cancrophaga*, on F 60, DA 4, cf S & B pl. 3  
 KK 501 *Muscicapa dibapha*, on F 150, DA 267, cf S & B pl. 7  
 KK 502 *Cuculus nitens*, on F 57, DA 151, S & B pl. 2  
 KK 503–4 [European birds]

### Universitätsbibliothek, Jena (watercolour on paper)

1. *Aptenodytes antarctica*, on F 82, DA 56, S & B pl. 21
2. *Aptenodytes magellanica*, on F 83, DA 351, S & B pl. 22

## References

- Broussonet, P. M. A.** 1782. *Ichthyologia, sistens piscium descriptiones et icones*, Decas 1. P. Elmsly, London, 41 pp.
- Dance, S. P.** 1971. The Cook voyages and conchology. *J. Conch.* **26** (6) : 354–379.
- Dawson, W.** 1958. *The Banks letters: a calendar of the manuscript correspondence of Sir Joseph Banks*. Trustees, British Museum, London, 965 pp.
- Forster, J. G. A.** 1777. *A voyage round the world, in His Britannic Majesty's sloop, Resolution, commanded by Capt. James Cook, during the years 1772, 3, 4 and 5*. B. White, J. Robson, P. Elmsly & G. Robinson, London, 2 vols (xviii + 602 pp. and 607 pp.).
- 1778a. *A letter to the Right Honourable the Earl of Sandwich, First Lord Commissioner of the Board of Admiralty, &c.* G. Robinson, London, 25 pp. + Appendix 6 pp.
- 1778b. *Reply to Mr. Wales's remarks*. B. White, J. Robson & P. Elmsly, London, 55 pp.
- Forster, J. R.** 1778. Beskrifning på djuret *Yerbuua* Capensis, med anmärkningar om genus *Yerbuuae*. *K. Vetensk Akad. Handl.* **39** : 108–119 (translated from the original Latin).
- Forster, T.** 1829. *Johann Georg Forsters Briefwechsel. Nebst von seinem Leben*. Edited by Th. H. [Huber] geb. H. [Heyne], Leipzig, 2 vols.
- Gordon-Brown, A.** 1952. *Pictorial art in South Africa*. Charles J. Sawyer, London, 159 pp.
- Hoare, M. E.** 1976. *The tactless philosopher. Johann Reinhold Forster (1729–98)*. Hawthorn Press, Melbourne, 419 pp.
- (in press). *The 'Resolution' journal of Johann Reinhold Forster, 1772–75*. Hakluyt Society.
- Joppien, R.** 1976. *Drawings from Captain Cook's voyages. An unrecorded collection of fourteen ethnographical and natural history drawings relating to the second and third voyages* [Catalogue of exhibition and sale, 13 September–1 October 1976]. Hartnoll & Eyre, London, 57 pp.
- Kahn, R. L., Steiner, G., Fiedler, H., Popp, K.-G. & Scheibe, S.** 1972. *Georg Forsters Werke. Sämtliche Schriften, Tagebücher, Briefe, 4—Strietschriften und Fragmente zur Weltreise*. Inst. deutsche Sprache Literatur, Deutschen Akademie der Wissenschaften, Berlin, (Vol. 1, 1968; vol. 2, 1965; vol. 3, 1966; vol. 5, not published; vol. 6, not published; vol. 7, 1963; vol. 8, not published; vol. 9, 1958; an as yet incomplete attempt to publish all George Forster's writings, of which Steiner, 1971 is a compressed version).
- Lichtenstein, M. H. K.** (ed.) 1844. *Descriptiones animalium quae in itinere ad maris australis terras per annos 1772, 1773 et 1774 suscepto collegit observavit et delineavit Johannes Reinoldus Forster*. Dummler, Berlin, xvi + 424 pp.
- Lysaght, A.** 1959. Some eighteenth century bird paintings in the library of Sir Joseph Banks. *Bull. Br. Mus. nat. Hist.* (hist. Ser.) **1** (6) : 251–371.
- Sawyer, F. C.** 1950. Some natural history drawings made during Captain Cook's first voyage round the world. *J. Soc. Bibliophy nat.* **2** : 190–193.
- Schneider, J. G.** 1801. *M. E. Blochii... Systema ichthyologiae iconibus ex illustratum. Post obitum auctoris opus inchoatum absolvit, correxit, interpolavit*. Berlin, 2 vols. (LX + 584 pp.).
- Steiner, G.** 1971. *Georg Forsters Werke in vier Bänden*. Vol. 1 *Reise um die Welt*, Vol. 2 *Kleine Schriften zur Naturgeschichte, Länder- und Völkerkunde. Ansichten vom Niederrhein*, Vol. 3 *Kleine Schriften zu Kunst, Literatur, Philosophie, Geschichte und Politik*, Vol. 4 *Briefe*. Leipzig.
- & Baege, L. 1971. *Vögel der Südsee. 23 Gouachen und Aquarelle nach Zeichnungen Georg Forsters, entstanden während seiner Weltumsegelung 1772 bis 1775*. Insel-Verlag, Leipzig, 79 pp., 23 pls.
- Wales, W.** 1778. *Remarks on Mr. Forster's account of Captain Cook's last voyage round the world, in the years 1772, 1773, 1774, and 1775*. J. Nourse, London, 110 pp.
- Whitehead, P. J. P.** 1969a. Zoological specimens from Captain Cook's voyages. *J. Soc. Bibliophy nat. Hist.* **5** (3) : 161–201.
- 1969b. *Forty drawings of fishes made by the artists who accompanied Captain James Cook on his three voyages to the Pacific 1768–71 1772–75 1776–80, some being used by authors in the description of new species*. Trustees, British Museum (Natural History), London, xxi pp., 36 pls.
- 1977. Emanuel Mendes da Costa (1717–91) and the *Conchology, or natural history of shells*. *Bull. Br. Mus. nat. Hist.* (hist. Ser.) **6** (1) : 1–24.